

1074

ORIGINAL LOG BOOK OF THE "FISH HAWK"

UNITED STATES FISH COMMISSION

STATION NUMBERS

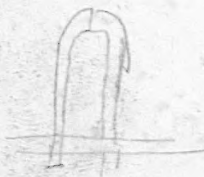
1122

Numbers 1074 to 1122

924 March



925° E North  
8 63° W NNE



Race pt W 1/2 W  
Cape Cod S 20 E

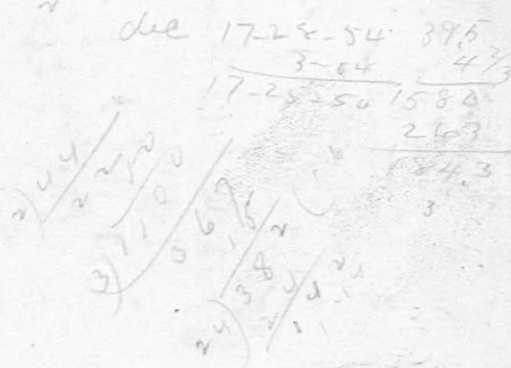
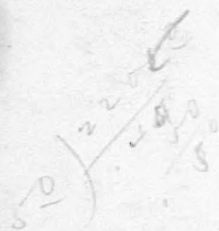
67-45 883 1/2 E  
4-39 440  
2200

69-50 2200

S 33 E

W by W 1/2 W

cc S 15 W 8240 W  
Ran S 75 W NW 880 W



cc S 60 W NE S 54 W  
Ran 3/4 W

70 W

69-30

17-25, 7.5-55.3 + to W. 7.

17-25, 16-05-37 263-50

due 17-25

1074  
Remarks

Put over 1 Beam Trawl  
at 1.10 P.M. in 18 fathoms  
of water. at 1.30 hove in  
Trawl. Containing 2 Dozen  
Shrimp, 1 Small Sturgeon - about  
one foot long. and 2 doz. Small  
~~fish~~. Rock Fish - Several  
young Menhaden - 1 perch  
Several flounders (2 kinds)

Thurs. 10<sup>th</sup> Lt. 100. N. x W. 1/2. W. 4 3/4

1074

# TEMPERATURE RECORD.

Instrument used, *Beam Trawl*

Current number of observation, *1074*

Date, *March 11 - 1882*

Locality, *off Kent Island*

Bearings, *South point of Kent Island bearing E x N.  $1\frac{1}{4}$*

Time of day, *1.10 P.M.*; of tide, *Ebb*

State of sky, *Clear*

Temperature of air, *51*

" surface of water,

" at depth of fathoms,

" of bottom, *41*

Depth, in fathoms, *18 - 12 - 11*

Nature of bottom, *Black mud*

Direction of ~~surface current~~, *Wind N.W.*

Force of ~~surface current~~, *Wind 3*

Direction of ~~bottom current~~, *Drift S.S.W. 1 mi*

Force of bottom current,

Name of vessel, *Fish Hawk*

To what service attached, *Fish Commission*

Name and rank of commanding officer, *Lieutenant*

*Z. L. Tanner, U.S.N.*

Name and position of observer,

1075

## REMARKS.

Trawl was put over  
 in 14 fathoms of water at  
 9.45 am. At 10 A.M.  
 hove in Trawl containing  
 several small Rock also  
 some young Crayfish.

1075  
n.3. 47995  
**TEMPERATURE RECORD.**

Instrument used, *Beam Trawl*  
Current number of observation, *1075*  
Date, *Mar 13 1882*  
Locality, *Off Kent Island*  
Bearings, *Sandy Pt. Sh. N. X W. 1/4 W*  
*3.12*  
Time of day, *9.45 Am.* of tide, *flood*  
State of sky, *Partly Cloudy*  
Temperature of air, *45*  
" surface of water, *43*  
" at depth of fathoms,  
" of bottom, *40*  
Depth, in fathoms, *2 14 - 11 -*  
Nature of bottom, *mud*  
Direction of surface current, *Wind N. by N. W.*  
Force of surface current, *Wind 5*  
Direction of bottom current, *Drift N. by N. W.*  
Force of bottom current,  
Name of vessel, *Fish Hawk*  
To what service attached, *Fish Commission*  
Name and rank of commanding officer, *Lieutenant*  
*J. L. Tanner, U. S. N.*  
Name and position of observer,

# REMARKS.

Put Oyster Dredge over  
at 2.20 P.M. in 6 fms of  
water. At 2.27 hove in  
Dredge - containing

TEMPERATURE RECORD



# TEMPERATURE RECORD.

Instrument used, *Oyster dredge*  
Current number of observation, *175*  
Date, *Mar 11-1882*  
Locality,  
Bearings,  
Time of day, *2.20 P.M.* of tide,  
State of sky, *Partly Cloudy*  
Temperature of air, *48*  
" surface of water,  
" at depth of fathoms,  
" of bottom,  
Depth, in fathoms, *6 - 7 -*  
Nature of bottom, *mud*  
Direction of ~~surface~~ current, *Wind*  
Force of ~~surface~~ current, *Wind*  
Direction of ~~bottom~~ current, *Drift cr. cr*  
Force of bottom current,  
Name of vessel, *Fish Hawk*  
To what service attached, *Fish Commission*  
Name and rank of commanding officer, *Lieutenant*  
*Z. L. Tanner, W.S.N.*  
Name and position of observer,

1096

## REMARKS.

Beam Trawl was put over  
 at 10.15 in 15 fathoms  
 of water. Hove up Trawl  
 at 10.36 and it containing  
 several small Roach, flounder  
 and 2 small Crampish

JEWELL'S RECORD

1076.  
(N. 3. 479957)

TEMPERATURE RECORD.

Instrument used, *Beam Trawl*  
Current number of observation, *1076*  
Date, *Mar. 13. 1882.*  
Locality, *Off Kent Island*  
Bearings, *Sandy Pt, S. by E. N. W. W. W.*  
*3.*  
Time of day, *10.15 am*; of tide, *Flood*  
State of sky, *Partly Cloudy*  
Temperature of air, *41.5*  
" surface of water, *43*  
" at depth of fathoms,   
" of bottom, *40*  
Depth, in fathoms, *15*  
Nature of bottom, *Mud.*  
Direction of ~~surface~~ current, *W. and N. by W.*  
Force of ~~surface~~ current, *Wind 5*  
Direction of ~~bottom~~ current, *Drift - N. by E.*  
Force of bottom current,   
Name of vessel, *Fish Hawk*  
To what service attached, *Fish Commission*  
Name and rank of commanding officer, *Lieutenant*  
*J. L. Tanner, U. S. N.*  
Name and position of observer,

1077

## REMARKS.

Put out Bland Trawl  
 at 10.55 AM in 11 fathoms  
 of water at 11.18 hove up  
 Trawl it containing  
 several small Rock Fishes  
 & some small Crustaceans

1077

## TEMPERATURE RECORD.

Instrument used, *Beam Trawl.*  
 Current number of observation, *1077*  
 Date, *March 13, 1882*  
 Locality, *Off Kent Island*  
 Bearings, *Sandy Pt. Lk. or. W. N. W.*  
*2 1/4*  
 Time of day, *10.55 am* of tide, *Flood*  
 State of sky, *Partly Cloudy*  
 Temperature of air, *49*  
 " surface of water, *43*  
 " at depth of fathoms,  
 " of bottom, *40*  
 Depth, in fathoms, *11 - 12.*  
 Nature of bottom, *Blue mud.*  
 Direction of ~~surface~~ current, *W and N. W. W*  
 Force of ~~surface~~ current, *Wind 5*  
 Direction of ~~bottom~~ current, *Drift 20 W.*  
 Force of bottom current,  
 Name of vessel, *Fish Hawk*  
 To what service attached, *Fish Commission*  
 Name and rank of commanding officer, *Lieutenant*  
*Z. L. Tanner, U.S.N.*  
 Name and position of observer,

1078

## REMARKS.

Water Specimens

Apparatus used.

Depth of specimen	Sp. gravity	Temp. corrected
Surface	1.0234	64
5 fms	1.0235	64
10 fms	1.0240	60

- 2 *Astrophyton Ignacii* abundant
- 2 *Alexonium Carneum* rare
- 2 *Strongylocentrotus Drachmanni* 1
- 2 *Asbina vulgaris*
- 2 *Chordeiles caryophyllis*
- 2 *Euphorbia corollata*
- 2 *Rossia Hyatti*
- Cyprina islandica*
- Fusus decemcostatus*
- Buccinum undatum*
- Eupagurus*
- Pandalus* 2
- 2 *Aphrophora aculeata*
- Mytilus*?, 2 *Stellaria undata* large
- Squilla* 1
- Sebastes marmoratus* 2
- Blenniocephalus cynoglossus* 6
- Anomia platys* 1
- Hippoglossoides platessoides* 1
- Scorpaenopsis* 1
- Paralichthys* 1
- Raja radiata*

Long life magnetic many  
{all bearings magnetic?}

## TEMPERATURE RECORD.

Instrument used, *Trawl*  
Current number of observation, *1078*  
Date, *Aug 2<sup>d</sup> 1882*  
Locality, *Cape Cod*  
Bearings, *Nauset Beacons*  
*NW 1/4 N dist 10 m*  
Time of day, *7-30 AM* tide,  
State of sky, *b. c.*  
Temperature of air, *72°* *sig. service ther-*  
" surface of water, *63.4. 47.9. 6.*  
" at depth of *5* fathoms, *56 at 10 fms 40*  
" of bottom, *37 - 2. 4. 5. 5. 5.*  
Depth, in fathoms, *53 = 55.*  
Nature of bottom, *gn. mud for sand*  
Direction of ~~surface~~ *Wind* current, *20. 5. 7. Force 3*  
Force of surface current, *Drift* *S by W 1/2 m.*  
Direction of bottom current,  
Force of bottom current,  
Name of vessel, *Fish Hawk*  
To what service attached, *U. S. Fish Comm.*  
Name and rank of commanding officer,  
*72. 2. 2. 2. 2. 2.*  
Name and position of observer,  
*W. B. Lick.*  
*Wida, U. S. Navy.*

1079

## REMARKS.

Depth of water			
Depth	Sp. group	Time	Completed
Surf	1.82325	6.2	
1/2 m	1.823	6.2	

*Hippoglossoides platessoides**Nereis radiata* 4*Chrysos Chrysos* & *tennis*

note

9 *Alpheoidea* *Agassizii* abundant*Caprellidae* *dissectus* - 100 per*Cyprina islandica* dead*Macoma sabulosa**Leptodermis* *apertirostris**Paraceras* *arctica* +*Glycymeris* *deliqua*Eggs of *Unio* *undulatus**Phoronis* *aculeata**Asarte* *lens* 1 valve

Eggs of a gastropod

*Hippocrepis*c *Urticina* ~~*nodosa*~~ *callosa*



1079

Instruments same as 1078

## TEMPERATURE RECORD.

Instrument used,

Trawl

Current number of observation,

1079

Date,

August 2<sup>nd</sup> 1882

Locality,

Cape Cod

Bearings,

Houses Beacon

NW by W 7/8 N 2 8/10 mi

Time of day, 8-40 AM; of tide,

State of sky,

bc

Temperature of air,

69°

" surface of water, 63.5°

" at depth of 5 fathoms, 56.5° at 10 fms 44°

" of bottom, 37

Depth, in fathoms, 59 = 61.5°

Nature of bottom,

fine sand

Direction of surface current,

Wind N by N Force 3

Force of surface current,

Drift - ESE 1 mile

Direction of bottom current,

Force of bottom current,

Name of vessel,

Fish Hawk

To what service attached,

U.S. Fish Comm.

Name and rank of commanding officer,

Lieut. J. L. Turner USN

Name and position of observer,

J. B. Shick

Widn USN

1032  
REMARKS.

Depth of Grav.	Temp.	Corr.
Surf	1.0234	62.5
5 fms	1.0242	58
10 fms	1.0244	58.5

*Siphonocostata*

*Retrophyton* very abundant

*Calanus* ... & very large

*Exocoma* ... 1 good form

" *arctica*

*Cyprina* ...

*Glycymeris* dead

*Cyprina* ...

*Urosalpinx* ...

*Urosalpinx* ...

*Buccinum* ...

*Forster* ...

*Monia* ...

*Enallagma*

*Hydractinia* ...

*Hydractinia* ...

*Hydractinia* ...

*Hydractinia* ...

*Hydractinia* ...

*Hydractinia* ...

*Mercurius* ...

*Hippodamia* ...

*Rana* ...

*Species names*  
*status* *morhua*  
*Atlantic* *cod* *1877*

## TEMPERATURE RECORD.

Instrument used,

*Trawl*

Current number of observation,

*1080*

Date,

*Aug. 22 1877*

Locality,

*Cape Cod*

Bearings,

*Harbor Beacons*

*NW by W 1/2 W dist 6 1/2 m*

Time of day,

*9-40 AM* of tide.

State of sky,

*bc*

Temperature of air,

*69*

surface of water, *61.5*

at depth of *5* fathoms, *56* at *10 fms* *40*

of bottom, *37*

Depth, in fathoms,

*53 = 55 fms*

Nature of bottom,

*fine sand*

Direction of ~~surface~~ current,

*W 8 W Force 2*

Force of ~~surface~~ current,

*Drift NW 1 mile*

Direction of bottom current,

Force of bottom current,

Name of vessel,

*Fish Hawk*

To what service attached,

*US Fish Commission*

Name and rank of commanding officer,

*Lieut. J. L. Tanner USN*

Name and position of observer,

*J. W. B. Lish*  
*Widow USN*



Instrument used, same as 1875  
72 47998 used for a check on  
bottom. **TEMPERATURE RECORD.**

Instrument used, *Trawl*

Current number of observation, *1081*

Date, *Aug 2nd 1872*

Locality, *Cape Cod*

Bearings, *Hausel Beacon*  
*45 by S dist 5 1/4 mi*

Time of day, *10:00* : of tide.

State of sky, *bc*

Temperature of air, *69*

" surface of water, *59*

" at depth of *5* fathoms, — at *10 fms 40*

" of bottom, *39*

Depth, in fathoms, *32 = 33.5*

Nature of bottom, *crs gal & isobles*

Direction of surface current, *Wind 7:00 PM Force 2*

Force of surface current, *Drift N by E 1 mi*

Direction of bottom current,

Force of bottom current,

Name of vessel, *Fish Hawk*

To what service attached, *U.S. Fish Comm.*

Name and rank of commanding officer,

*Lieut. J. E. Lawrence U.S.N.*

Name and position of observer,

*J. B. Blush*  
*Midw. U.S.N.*

1082

## REMARKS.

Depth	Specimen	Length
10 fms	10235	62
5 fms	10240	58
10 fms	10245	52

*Lycium**Epicula ovalis**Modiola modiolus**Lebastes omanus*

Just's name as 1078

## TEMPERATURE RECORD.

Instrument used, *Trawl*

Current number of observation, *1082*

Date, *Aug. Dec 1882*

Locality, *Cape Cod*

Bearings, *Cape Cod Light House*

*NW 3/4 N dist 11 1/2 miles*

Time of day, *11-45* ; of tide,

State of sky, *bc*

Temperature of air, *70*

" surface of water, *59*

" at depth of *5* fathoms, *at 10 fms*

" of bottom, *40*

Depth, in fathoms, *27 = 28*

Nature of bottom, *co. g. s.*

Direction of surface current, *wind N by W force 1*

Force of surface current, *Drift NW by N 1/4 N*

Direction of bottom current,

Force of bottom current,

Name of vessel, *Fish Hawk*

To what service attached, *U.S. Fish Comm*

Name and rank of commanding officer, *Lieut. J. E. Lander USN*

Name and position of observer, *J. B. Clark*  
*Master USN*

## REMARKS.

Marble	10230	66
5/8 in	10231	64
10 "	10229	650

*Stachys maritima*

*Myiops Alphabeticus cynoglossus*



Instrument same as 1874

## TEMPERATURE RECORD.

Instrument used, *Trawl*  
Current number of observation, *1183*  
Date, *Aug. 2, 1882*  
Locality, *Cape Cod*  
Bearings, *Cape Cod Light House*  
*W by N* *dist. 2 miles*  
Time of day, *12-45 PM*; of tide,  
State of sky, *b-c*  
Temperature of air, *77*  
" surface of water, *64*  
" at depth of *5* fathoms, *59?* at *10 fms. 42*  
" of bottom, *3 8*  
Depth, in fathoms, *80 = 83 = fms*  
Nature of bottom, *fine, medium sand & mud*  
Direction of surface current, *W by N 1/2 S*  
Force of surface current, *1/8 W 1/2 S*  
Direction of bottom current,  
Force of bottom current,  
Name of vessel, *Fish Hawk*  
To what service attached, *U.S. Fish Hawk*  
Name and rank of commanding officer,  
*Lieut. J. L. Tanner U.S.N.*  
Name and position of observer,  
*J. J. Blish*  
*Midw. U.S.N.*

REMARKS.

5 fms 1.0235 65  
 10 fms 1.0236 66

*Pharus porus* 1 large  
*Pharus* 2 medium

*Hypur*

*Cyrtus islandicus* 1-  
*Stomatopoda* 1-  
*Myxodonta* 1-

*Cyrtus islandicus* 2-3  
*Hypur* 1-  
*Stomatopoda* 1-  
*Myxodonta* 1-

*Eupagurus*

*Stomatopoda* 1-  
*Amorpha aculeata*

*Stomatopoda* 1-  
*Stomatopoda* 1-  
*Stomatopoda* 1-  
*Stomatopoda* 1-

*Stomatopoda* 1-  
*Hippoglossoides platessoides*  
*Stomatopoda* 1-  
*Stomatopoda* 1-

# TEMPERATURE RECORD.

Instrument used, *Hand*

Current number of observation, *1087*

Date, *Aug 20 1896*

Locality, *Cape Cod*

Bearings, *Cape Cod Light House*

*N 71 3/4 W dist. 8 miles*

Time of day, *2-20 PM*; of tide,

State of sky, *bc*

Temperature of air, *78*

" surface of water, *62.5*

" at depth of *5* fathoms,

*at 10 fms 43.5*

" of bottom, *38 =*

Depth, in fathoms, *36 = 37.5*

Nature of bottom, *coarse sand*

Direction of surface current, *Hand*

*W 81° E Force 2*

Force of surface current, *Hand*

*W 81° E 1 mile*

Direction of bottom current,

Force of bottom current,

Name of vessel, *Fish Hawk*

To what service attached, *U.S. Fish Commission*

Name and rank of commanding officer,

*Lieut J. H. Tanner U.S.N.*

Name and position of observer,

*J. W. Blish  
Under 1896*

## REMARKS.

Depth	Specific Gravity	Temp.	Sp. Grav. Corr. to 60° F.
Surf	1.0250	64	
5 fms	1.0230	64	
10 fms	1.0220	60	

*Rhynchospora radialis* 4  
*Ptychopodium platyoides*  
*Utricularia funiculata* 4  
*Murægon*  
*Zonocera angustata*  
*Las. octidens* *Alchornea*

*Lophositta maculata*  
*Linoda* *prospina*  
*highlandensis* *subsp. nov.*  
*Alfred James* *1914*  
**TEMPERATURE RECORD.**

Instrument used, *Trawl*

Current number of observation, *1080*

Date, *Aug 3*

Locality, *Off Cape*

Bearings, *Race Point Light*  
*S 30 E*

Time of day, *6.15 AM*; of tide,

State of sky, *bc*

Temperature of air, *67*

" surface of water, *64*

" at depth of *5* fathoms, *67* at 10 fms *43*

" of bottom, *39*

Depth, in fathoms, *33 = 32.5*

Nature of bottom, *fine sand*

Direction of surface current, *wind*

Force of surface current, *Drift*

Direction of bottom current,

Force of bottom current,

Name of vessel, *Fish Hawk*

To what service attached, *US Fish Comm*

Name and rank of commanding officer,  
*Lieut. J. L. Tanner USN*

Name and position of observer,  
*J. B. Smith*  
*Master USN*

## REMARKS.

1033' 25'

[illegible]

# TEMPERATURE RECORD.

Instrument used,

Current number of observation, 1086

Date, Aug 10 1886

Locality, Cape Cod

Bearings, S 20° W

Time of day, 7.00 AM; of tide,

State of sky, bc

Temperature of air, 74

" surface of water, 64

" at depth of fathoms,

" of bottom, 375

Depth, in fathoms, 38 = 38

Nature of bottom, fine sand

Direction of surface current, 1000 F. 3

Force of surface current, 1/2 mile

Direction of bottom current,

Force of bottom current,

Name of vessel, Fish Hawk

To what service attached, US Fish Comm

Name and rank of commanding officer,

R. L. L. Tanner USN

Name and position of observer,

J. B. Light  
Midw. Sec.

1087  
REMARKS.

1,0232-63

1,0235-61

1,0236-58

Grass shells & forage

Hydrochara 3 Hops & Berries

Potamogeton pectinatus

Polystichum Fructuosa

Hydrochara (sp.) multidentata

Hydrochara Bryozoa

Hydrochara Bryozoa

\* No cat-o'-fish

\* Roraria

\* Hydrochara (sp.)

Hydrochara

Hydrochara oralis m.

Cyprina islandica m.

Hydrochara (sp.)

\* Hydrochara (sp.)

Sagittaria arctica m.

Polygala lutea m.

Glyptocephalus cyrillensis

Rana catesbeiana

Aspidophoroides noniflorus



# TEMPERATURE RECORD.

Instrument used,

Trawl

Current number of observation,

1087

Date,

Aug 21 1884

Locality,

Cape Cod

Bearings,

Lat 40° 15' N Long 70° 15' W

Time of day,

830 ; of tide,

State of sky,

b.c.

Temperature of air,

84

" surface of water, 62.5

" at depth of 5 fathoms, 46 10/100 41

" of bottom, gy

Depth, in fathoms, 42 = 44

Nature of bottom,

gray sand mud

Direction of surface current,

drift 1/2 mi Force -

Force of surface current,

1/2 mi 1/2 mi

Direction of bottom current,

Force of bottom current,

Name of vessel,

Fish Hawk

To what service attached,

U.S. Fish Comm

Name and rank of commanding officer,

Lt L L Lanner USN

Name and position of observer,

J. B. Bishop  
Master USN

1023  
REMARKS.

Aug. 1023 64

5- 1023 63

1023 2 635

*Pharus acciden* 8-

*Pharus acciden* 2-

*Pharus acciden* 8+

*Pharus acciden* 2- 1023

*Pharus acciden* 1-

*Pharus acciden* 8+1-

*Pharus acciden* 2+1 (valve)

*Pharus acciden* 6-

*Pharus acciden* 2-

*Pharus acciden* 10 (valve)

*Pharus acciden* 10 (valve)

*Pharus acciden*

*Pharus acciden* 1-

*Pharus acciden* 1-

*Pharus acciden* 1-

*Pharus acciden*

*Pharus acciden* very many

*Pharus acciden*

*Pharus acciden*

*Pharus acciden* 10 (valve)

*Pharus acciden*

*Pharus acciden*

*Pharus acciden*

*Pharus acciden*

*Pharus acciden*

*Centropomus undulatus* many  
*Careproctus*  
*Portunus flavescens*  
*Debusia*  
**TEMPERATURE RECORD.**  
*Hippoglossus platessoides*  
*Rana*

Instrument used.

Current number of observation, 1058

Date, Aug 27 1892

Locality, Cape Cod

Bearings, Cape Cod Light N 1/2 W 1/2 mi

Time of day, 6:00 ; of tide.

State of sky, bc

Temperature of air, 82.0

" surface of water, 62

" at depth of 5 fathoms, 59.5 at 10 fms

" of bottom, 38

Depth, in fathoms, 86 = 90

Nature of bottom, crs sand

Direction of surface current, Wind NW force 3

Force of surface current, Drift NW 1/2 mi

Direction of bottom current,

Force of bottom current,

Name of vessel, Fish Hawk

To what service attached, US Fish Comm

Name and rank of commanding officer

L. L. Leune, USN

Name and position of observer,

J. B. Shook  
Underwater

1089  
REMARKS.

10231 62  
10232 62  
10234 62

Box of Empty

# TEMPERATURE RECORD.

Instrument used,

Trawl (failed)

Current number of observation.

1089

Date,

Aug 10 1881

Locality.

Cape Cod

Bearings,

Cape Cod Pt. 14 miles  
3 1/2 N 78 E

Time of day,

11:40 AM of tide,

State of sky,

bc

Temperature of air,

78

" surface of water, 63

" at depth of fathoms,

" of bottom, 38, 5'

Depth, in fathoms, 106 = 110

Nature of bottom,

gy mud

Direction of surface current,

strong force

Force of surface current,

drift NW 1/4 N 1/4 mile

Direction of bottom current,

Force of bottom current,

Name of vessel,

Fish Hawk

To what service attached,

U.S. Fish Comm

Name and rank of commanding officer,

L. L. Tanner USN

Name and position of observer,

W. B. Fish  
USN

## REMARKS.

[illegible]

Phases Chess 10

*Myriophyllum*

*Trichelydopterus ambrosius*

Phyllis Chase

Korea *Euphorbia*

*Myiobates occidentalis, Linnæus Bonn.*

*Salicornia* det. *Halia Thraexformis*, Foster & Low

100 *Hya hirsuta*, *Liparis pygmaea*.

*Hamamelis striolatum*, L. var. *dentata*

John's off-white, the same as the

Continued from previous page, Laid: Tennessee

Ly. Cadeia V. Amalia

# TEMPERATURE RECORD.

Instrument used, *Trawl*

Current number of observation, *1096*

Date, *Aug 3d 1887*

Locality, *Cape Cod*

Bearings, *Cape Cod Light House  
5 1/4 N or about 13 3/4*

Time of day, *12.56 PM* of tide,

State of sky, *bc*

Temperature of air, *81.5*

" surface of water, *62*

" at depth of *5* fathoms, *56* *10 fms 52*

" of bottom, *3 fms*

Depth, in fathoms, *166 = 110*

Nature of bottom, *gray sand*

Direction of surface current, *11.30 - 1.00*

Force of surface current, *2.4 - 3.0*

Direction of bottom current,

Force of bottom current,

Name of vessel, *Fish Hawk*

To what service attached, *U.S. Fish Comm*

Name and rank of commanding officer, *A. L. L. Fanner U.S.N.*

Name and position of observer, *W. B. Hobbs  
Master U.S.N.*

1091

## REMARKS.

Depth	Water Specimens	Temp	Reduced to 60°
Surface	1023	72	
5 fms	1021	75	
10 "	1020	75	

*Scithys oblongus* ♀ + ♂

*Physa* Chuss - abundant

sent down barrel at 5 fms depth  
*Amphioxus* *climacianus* small  
*Parasolus*



Thermometer & hydrometer  
same as used on Aug 2<sup>nd</sup> & 3<sup>rd</sup>

TEMPERATURE RECORD.

Instrument used, *Trawl*  
Current number of observation, *1091*  
Date, *Aug 11 1882*  
Locality, *off Cape Cod, Vineyard*  
Bearings, *Lat 40°-03' N*  
*Long 69°-44' W*  
Time of day, *5.30* ; of tide,  
State of sky, *b. c.*  
Temperature of air, *77*  
" surface of water, *75*  
" at depth of *5* fathoms, *at 10 fms 62*  
" of bottom, *46*  
Depth, in fathoms, *62 = 65 fms*  
Nature of bottom, *Grey Sand & broken shells*  
Direction of ~~surface current~~ *Wind N W Force 3*  
*Drift N W Dist 1/2 mile*  
~~Force of surface current~~  
*Temperature at fms*  
~~Direction of bottom current~~  
~~Force of bottom current~~  
Name of vessel, *Fish Hawk*  
To what service attached, *U.S. Fish Comm.*  
Name and rank of commanding officer, *Lt. J. L. Tanner U.S. Navy*  
Name and position of observer,

1092

## REMARKS.

Surf 10237 72

5 fms 10236 74

10 10235 75

and down-trawl at 7.09

reached bottom 7.12 of 8.11

*Arctostaphylos**Alcyonella*small, *Pandora**Stomatopoda**Stomatopoda**Stomatopoda**Stomatopoda**Stomatopoda**Stomatopoda**Stomatopoda**Stomatopoda**Stomatopoda**Stomatopoda**Stomatopoda*

# TEMPERATURE RECORD.

Instrument used, *Trawl*  
 Current number of observation, *1092*  
 Date, *Aug 11th 54*  
 Locality, *off Martha's Vineyard*  
 Bearings, *Lat 39°-58' N*  
*Long. 69°-41 W*  
 Time of day, *6.54*; of tide,  
 State of sky, *bc*  
 Temperature of air, *79*  
 " surface of water, *75*  
 " at depth of fathoms,  
 " of bottom, *41*  
 Depth, in fathoms, *194 = 202*  
 Nature of bottom, *gray sand*  
 Direction of surface current, *drift NW force 3*  
*1/2 mile*  
 Force of surface current, *1 1/2 miles*  
 Direction of bottom current,  
 Force of bottom current,  
 Name of vessel, *Fish Hawk*  
 To what service attached, *US Fish Comm*  
 Name and rank of commanding officer, *Lt. L. L. Tanner USN*  
 Name and position of observer, *J. B. Blish*  
*Master USN*

# 1093

## REMARKS.

10233 74

10237 74

10243 73

trail over 9.10, reached bottom 9.26  
trail up 10.20

*Halimolobos senilis*  
*Leptocarpus* <sup>no</sup> *Leptocarpus* <sup>pinatus</sup>  
*Chromolaena* <sup>pinatus</sup> *Leptocarpus* <sup>pinatus</sup>  
*Camphorospha* <sup>pinatus</sup> *Physalis* <sup>pinatus</sup> (2)  
*Urtica* <sup>pinatus</sup> *Bambusa* <sup>pinatus</sup> many  
*Adiantum* <sup>pinatus</sup> *Cynodactylon* /  
*Polygonum* <sup>pinatus</sup> *Polypodium* <sup>pinatus</sup> 2 sides /  
*Centropogon* <sup>pinatus</sup> *Fabricia*

# TEMPERATURE RECORD.

Instrument used, *Trawl*  
 Current number of observation, *1093*  
 Date, *Aug 11th 82*  
 Locality, *Off Cape Cod*  
 Bearings, *Lat 39°-56'-00" N*  
*Long 69°-45'-00" W*  
 Time of day, *3.5* ; of tide,  
 State of sky, *bc*  
 Temperature of air, *82*  
 " surface of water, *75*  
 " at depth of fathoms,  
 " of bottom, *40*  
 Depth, in fathoms, *336-349*  
 Nature of bottom, *fine sand + mud*  
 Direction of surface current, *drift 3*  
 Force of surface current, *1 mile*  
 Direction of bottom current,  
 Force of bottom current,  
 Name of vessel, *Fish Hawk*  
 To what service attached, *U.S. Fish Comm*  
 Name and rank of commanding officer, *J. B. L. Lamer*  
 Name and position of observer, *J. B. L. Lamer*

1094

## REMARKS.

Surf 10232 77  
 5 10235 76  
 10 10235 76

From 10.35 <sup>bottom</sup> 11.20  
 up 11.32

Lat 11.15 at sea of Mad  
 11.15 = 133 bottom sand  
 Scaphus 3, Rais radialis 1 per  
 Murchisonia 11 long 1 Vitulinaria  
 Pecten chelonioides  
 " tenuis  
 Careproctus

# TEMPERATURE RECORD.

Instrument used, *Deep-sea Trawl*  
 Current number of observation, *1094*  
 Date, *Aug 11, 1882*  
 Locality, *off Martha's Vineyard*  
 Bearings, *Lat 39°-57'N*  
*Long 69°-47'W*  
 Time of day, *1010* ; of tide, "  
 State of sky, *bc*  
 Temperature of air, *84*  
 " surface of water, ~~76~~ *76*  
 " at depth of fathoms,  
 " of bottom, *40*  
 Depth, in fathoms, *289 = 301*  
 Nature of bottom, *blue mud*  
 Direction of surface current, *drift 1/4 force 2*  
 Force of surface current, *drift NW 1/4 N 1/2 mile*  
 Direction of bottom current, *drift 2/3 force 5*  
 Force of bottom current, *30 " 4"*  
 Name of vessel, *Fish Hawk*  
 To what service attached, *US Fish Comm*  
 Name and rank of commanding officer, *A. L. L. Tanner USN*  
 Name and position of observer, *J. M. B. Ford*

1095-

## REMARKS.

1000	1.0235	75
9	1.0236	75
10	1.0236	75

Trawl 1000 1200 and 1200  
at 1.03

At 1.05 standing 159 = 165  
then sand.

*Macrurus Baiardi* (many)

*Spofelus*, *Phycus chrys*

*Cyclostus* *Trinell* 1

*Pollicia* *Kobana*

*Phycus*

*Synapobranchus pinnatus* 3



# TEMPERATURE RECORD.

Instrument used, *Dredge Trawl*

Current number of observation, *1095*

Date, *Aug 11 82*

Locality,

Bearings, *Lat 39°-55'-28" N <sup>82</sup>*  
*Long 69°-47'-00" W*

Time of day, *11:55* ; of tide,

State of sky, *b-c*

Temperature of air, *82*

" surface of water, *76*

" at depth of *5* fathoms, *75 1/2* at *76* *72*

" of bottom, *40*

Depth, in fathoms, *309 = 321*

Nature of bottom, *20 ft. green mud*

Direction of surface current, *Force 2*

Force of surface current, *NNW 1/2 W 3/4 mile*

Direction of bottom current, *20 49*

Force of bottom current, *30 47*

Name of vessel, *U.S. Fish Hawk*

To what service attached, *U.S. Fish Comm*

Name and rank of commanding officer, *Lt. L. L. Tanner USN*

Name and position of observer, *J. M. Smith*

\* Temp. at 30 & 50 fms. Taken simultaneously using Mr. Baillie's apparatus

1096

## REMARKS.

1.0236 70~

1.0236 70~

1.0236 75~

Trawl 155 fathoms 4.2

Trawl 155 fathoms 4.2

Eurypterus

Callinectes

Libinia

Palaemonetes

Mithridatis

Palaemonetes

Mithridatis

Palaemonetes

Callinectes

# TEMPERATURE RECORD.

Instrument used,

*Trawl*

Current number of observation,

*1096*

Date,

*Aug 17 1882*

Locality,

*Off North's Bay, N. C.*

Bearings,

*Lat. 39°-53' N*

*Long 69°-47' W*

Time of day,

*1:39 PM; of tide,*

State of sky,

*bc*

Temperature of air,

*78*

"

surface of water,

*75 1/2*

"

at depth of

*3*

fathoms,

*75 1/2*

*at 16 fms 65*

"

of bottom,

*40*

Depth, in fathoms,

*305 = 317*

Nature of bottom,

*green mud*

Direction of surface current,

*Wind*

*W N W Force 3*

Force of surface current,

*Drift*

*W N W 1/2 N 1/2 mi*

Direction of bottom current,

Force of bottom current,

Name of vessel,

*Albatross Hawk*

To what service attached,

*North Carolina*

Name and rank of commanding officer,

*Lieutenant Z. B. Tanner, U. S. Navy*

Name and position of observer,

*Midshipman J. B. Black*

*U. S. Navy*

1097  
REMARKS.

10232 74

10233 75

10235 74

Trawl over 3.20. Bottom at 3.32

trawl up 4.15

At 4.03 sounding 81 = 85

and 7 broken shells

<sup>Carminata</sup>  
*Mysis* *seta. chys. Profana*

*Rais. radialis* *Rais* sp.

*Thyas clunes*

" *tenuis*

*Merluccius bilinearis* (abundant)

*Edyotia perfidus* many

*Asterias Faccini*

*Luc. borealis* *Eupagurus*

*Gemma*

*Sandalus* 2nd

*Strongylocentrotus* many

*Halimeda sensuosa*

*Paralacthya oblonga* 1

# TEMPERATURE RECORD.

Instrument used,

Current number of observation,

Date,

Locality,

Bearings,

Time of day,

; of tide,

State of sky,

Temperature of air,

" surface of water,

" at depth of

fathoms,

" of bottom,

Depth, in fathoms,

Nature of bottom,

Direction of surface current,

Force of surface current,

Direction of bottom current,

Force of bottom current,

Name of vessel,

To what service attached,

Name and rank of commanding officer,

Name and position of observer,

ens 1.0237 74

2 fms 1.0237 74

11 fms 1.0238 73 1/2

Trawl over 4.50 bottom 5.00

Trawl 5.43

500 yd. haul 76279

Physar. chus Setorchus

P. unius

Elyptoccephalus cyglossus

Strophodonta

Rana cylindrica

Frank

Frank

1098

W. L. Harthas Vineyard  
Lot 300 E 2<sup>nd</sup> St

Lat  $39^{\circ}-53'N$   
Long  $69^{\circ}-43'W$

4/3 3<sup>rd</sup>; of tide.

24

78

75

fathoms, 72 and 60

43 1/2

$$156 = 156$$

True Hand

surface current.

place current.  $R_1 \approx 2.4 \text{ ohm}$

Direction of bottom current,

### Force of bottom current

rent. *Frank Hawk*

NGFisk Center

Name and rank of commanding officer,

Name and rank of commanding officer,  
H. L. L. Farnes 1876

1099  
REMARKS.

*Specific Gravity*

Water	14	74
5 lbs	40225	72

*Anoturus argyrops*

*Protopsecta maculata*

*Poisonatus carolinus*



# TEMPERATURE RECORD.

Instrument used, *Trawl*  
 Current number of observation, *1899*  
 Date, *Aug 18th 1892*  
 Locality, *Vineyard Sound*  
 Bearings, *Nobles Pt Light House*  
*1 1/2 miles*  
 Time of day, *11.06* ; of tide, *Half Flood (East)*  
 State of sky, *bc*  
 Temperature of air, *76*  
 " surface of water, *72*  
 " at depth of fathoms,  
 " of bottom, *71 1/2*  
 Depth, in fathoms, *6*  
 Nature of bottom, *Sand & gravel*  
 Direction of surface current, *Wind North Force 2*  
*Drift NEXN 1/2 mile*  
 Force of surface current,  
 Direction of bottom current,  
 Force of bottom current,  
 Name of vessel, *Fish Hawk*  
 To what service attached, *U.S. Fish Comm*  
 Name and rank of commanding officer,  
*Lt. Z. L. Tanner - 84*  
 Name and position of observer,  
*J. M. Smith*  
*Under 84*

1100  
REMARKS.

Jan 11 1882 1/2  
5 11 1882 1/2

*Stenotomus argenteus*  
*Pomoxorus cadmus*  
*Centropomus atrarius* 2 juv.

# TEMPERATURE RECORD.

Instrument used,

*Trawl*

Current number of observation,

*1100*

Date,

*Aug 18 1882*

Locality,

*Long Island Sound*

Bearings,

*N 10° E Pt. Lookout*

*W 80° E*

*1 1/4 miles*

Time of day,

*11:47*

; of tide,

*Flood (easterly)*

State of sky,

*b*

Temperature of air,

*77*

"

surface of water,

*72*

"

at depth of

fathoms,

"

of bottom,

*7 1/2*

Depth, in fathoms,

*4 3/4*

Nature of bottom,

*Sand & green shells*

Direction of surface current,

*Wind N by E 2*

Force of surface current,

*Drift N 24° E 1/2 mile*

Direction of bottom current,

Force of bottom current,

Name of vessel,

*Fish Hawk*

To what service attached,

*U.S. Fish Comm*

Name and rank of commanding officer,

*Lt. L. L. Fanner USN*

Name and position of observer,

*J. B. Chick  
Master USN*

1101  
REMARKS.

Dec 1 1822 73

#12 110116 73

*Stenotomus argenteus* what

# TEMPERATURE RECORD.

Instrument used,

*Trawl*

Current number of observation,

*1101*

Date,

*Aug 12 - 1892*

Locality,

*Village of Spanish*

Bearings,

*about 1/4 pt 1/4 N*

*1/2 x 2 about 1/2 mile*

Time of day,

*12:15 ; of tide, flood*

State of sky,

*b*

Temperature of air,

*78*

"

surface of water,

*72*

"

at depth of

fathoms,

"

of bottom,

*71*

Depth, in fathoms,

*5*

Nature of bottom,

*shells*

Direction of surface current,

*Wind North force 1*

Force of surface current,

*Drift NE 1 mile*

Direction of bottom current,

Force of bottom current,

Name of vessel,

*Fish Hawk*

To what service attached,

*US Fish Comm.*

Name and rank of commanding officer,

*W. L. L. Tanner USN*

Name and position of observer,

*Josiah W. W. W.*

1102  
REMARKS.

Surf. 1,022.9 70.

1,022.9 69

2.  
*Arion ater carolinus*

# TEMPERATURE RECORD.

Instrument used, *Trawl*

Current number of observation, *1102*

Date, *Aug 10 1882*

Locality, *Off Cape Cod*

Bearings, *East Cape Light*

Time of day, *110*

; of tide, *Black (high) water*

State of sky, *bc*

Temperature of air, *73*

" surface of water, *76*

" at depth of fathoms,

" of bottom, *107*

Depth, in fathoms, *5*

Nature of bottom, *fine sand*

Direction of surface current, *East*

Force of surface current, *Ex 8 1/2 mi*

Direction of bottom current,

Force of bottom current,

Name of vessel, *Fish Hawk*

To what service attached, *US Fish Comm*

Name and rank of commanding officer,

*Lt. L. L. Tanner USN*

Name and position of observer,

*John White  
Master USN*

1103  
REMARKS.

Aug 1022870

Aug 1022870

*Comptosia carolinensis*

*Lophopsetta maculata*

*Stenotomus argyrops* per many



# TEMPERATURE RECORD.

Instrument used,

*Trawl*

Current number of observation,

*1103*

Date,

*Aug 18<sup>th</sup> 1882*

Locality,

*Vineyard Sound*

Bearings,

*East Chop Lgt. Ho.*

*N. W. by W*

*2 3/4 miles*

Time of day,

*1.42*

; of tide,

*Black 1 Hr. W.*

State of sky,

*O. C.*

Temperature of air,

*70*

"

surface of water,

*70*

"

at depth of

fathoms,

"

of bottom,

*69.*

Depth, in fathoms,

*5*

Nature of bottom,

*Coarse Sand*

Direction of

~~surface~~ *wind* current,

*N. E*

*Force 2*

Force of surface current,

Direction of

~~bottom~~ *drift* current.

*by S*

*1/4 mi*

Force of bottom current,

Name of vessel,

*Fish Hawk*

To what service attached,

*U.S. Fish Comm.*

Name and rank of commanding officer,

*Lt. L. L. Tanner U.S.N.*

Name and position of observer,

*J. B. Cook  
Master U.S.N.*

1104

REMARKS.

Aug 1 1822 8 70

Aug 1 1822 8 70

*Peronotus carolinus* (rus)

*Stenotomus argyropus* (rus)

*Peronotus trica carolinus* &

# TEMPERATURE RECORD.

Instrument used,

*Trawl*

Current number of observation,

*1104*

Date,

*Aug 18th 1882*

Locality,

*Wineyard Sound*

Bearings,

*East of Pt. 40*

*run 1/2 hr*

*4 miles*

Time of day,

*2.12*

; of tide,

*slack (end of ebb)*

State of sky,

*b*

Temperature of air,

*79*

"

surface of water,

*70*

"

at depth of

fathoms,

"

of bottom,

*69*

Depth, in fathoms,

*8 1/2*

Nature of bottom,

*shells*

Direction of ~~surface~~ current,

*Wind ENE 3*

Force of surface current,

*Drift N x W 3/4 W 1/2 mi*

Direction of bottom current,

Force of bottom current,

Name of vessel,

*Fish Hawk*

To what service attached,

*U.S. Fish Comm*

Name and rank of commanding officer,

*H. L. L. Lanner USN*

Name and position of observer,

*J. B. Fish  
Midn USN*

1105-  
REMARKS.

2m 6. 1.0226 | 70

8 1/4 1.0225 | 70

10 1.0228 | 70

*Lophositta maculata* 2 (1 large)  
*Stenatorhinus argyrops* (short fin)

# TEMPERATURE RECORD.

Instrument used,

*Trawl*

Current number of observation,

*1105*

Date,

*Aug 18 1942*

Locality,

*Vineyard Sound*

Bearings,

*Cape Poge Lt. Ho*

*S x W dist. 4 miles*

Time of day,

*3:00*

; of tide,

*High water*

State of sky,

*bc*

Temperature of air,

*80*

"

surface of water,

*72*

"

at depth of

fathoms,

"

of bottom,

*71*

Depth, in fathoms,

*10*

Nature of bottom,

*Coarse sand*

Direction of ~~surface~~ current,

*round*

*NE*

*3*

Force of ~~surface~~ current,

*strong*

*NE 1/2 E*

*2 miles*

Direction of bottom current,

Force of bottom current,

Name of vessel,

*Fish Hawk*

To what service attached.

*US Fish Comm*

Name and rank of commanding officer

*Lt L. L. Tanner USN*

Name and position of observer.

*W. B. Smith  
Midw USN*

1106  
REMARKS.

10227 72

10228 72

*Pantogobius adspersus* 1  
*Stenobolus argyrops* (attd)

# TEMPERATURE RECORD.

Instrument used,

Current number of observation,

Date,

Locality,

Bearings,

Time of day,

State of sky,

Temperature of air,

" surface of water,

" at depth of

fathoms,

" of bottom,

Depth, in fathoms,

Nature of bottom,

Direction of surface current,

Force of surface current,

Direction of bottom current,

Force of bottom current,

Name of vessel,

To what service attached,

Name and rank of commanding officer,

Name and position of observer,

1107

## REMARKS.

Specific Gravity

Purpan	1.0244	67
5 fms	44	67
10 "	43	68

Trawl over 6.12 down 6.25  
 heaving in 6.46 up 6.54  
 220 fms out  
 Water-Haul

Ret-trawl-lines



# TEMPERATURE RECORD.

Instrument used, *Trawl (case of rope)*  
 Current number of observation, *1107*  
 Date, *Aug 22 1882*  
 Locality, *off Nantuxet River and*  
 Bearings, *Lat 40°-02' N*  
*Long 70°-35' W*  
 Time of day, *—*; of tide, *—*  
 State of sky, *bc*  
 Temperature of air, *65 1/2*  
 " surface of water, *71*  
 " at depth of *5* fathoms, *71 1/2 at 10 fms 66*  
 " of bottom, *48*  
 Depth, in fathoms, *111 = 116*  
 Nature of bottom, *gy mud*  
 Direction of surface current, *Wind from Force 2*  
*Drift NW 1'*  
 Force of surface current, *—*  
 Direction of bottom current,  
 Force of bottom current,  
 Name of vessel, *Fish Hawk*  
 To what service attached, *US Fish Comm*  
 Name and rank of commanding officer,  
*Lt. J. L. Tanner USN*  
 Name and position of observer,  
*J. A. Blish*  
*Whidbey 1881*

1108

## REMARKS.

Specific Gravities

Surface	1.0243	67
5 fms	42	68
10 "	42	68

Haul over 6.58 down 7.07

heaving in 7.37 up 7.50 300 fms out

*Physiculus* (18) *Raia erinacea* (1)*Paralichthys oblongus* (6)*Leptocottelus armatus* (5)*Myxine glutinosa* (abund)*Athorichthys rostrata* (1)*Aphichthys* (abund)*Hyphalonedon chalybeius*

# TEMPERATURE RECORD.

Instrument used, *Hawk*

Current number of observation, *1108*

Date, *Aug 22 1882*

Locality, *Off Martha's Vineyard*

Bearings, *Lat. 40°-02' N*  
*Long 70°-37'-30" W*

Time of day, *6.55* ; of tide.

State of sky, *bc*

Temperature of air, *69 1/2*

" surface of water, *71*

" at depth of fathoms,

" of bottom, *48*

Depth, in fathoms, *77=101*

Nature of bottom, *gray mud & fine sand*

Direction of surface current, *Wind WSW Force 2*

Force of surface current, *Drift NW 3/4*

Direction of bottom current,

Force of bottom current,

Name of vessel, *Fish Hawk*

To what service attached, *U.S. Fish Comm*

Name and rank of commanding officer,

*Lt. L. L. Tanner USN*

Name and position of observer,

*J. B. Shook*  
*Master USN*

1109

## REMARKS.

Specific Gravities

Surface	1.0243	66
5 fms	43	66
10 "	44	68

Trawl over 800 down 8.12

Hauling in 8.40 at 8.50 250 fms out

Scorpaena (3) Phycis chuss about

Phycis tenuis (abund), kelyptocéphalus

gynoglossus (few) Paralichthys oblongus

Araia (few) &amp; yolk of egg 1

# TEMPERATURE RECORD.

Instrument used,

*Thermometer*

Current number of observation,

*1109*

Date,

*Aug 22, 1882*

Locality,

*Off Martha's Vineyard*

Bearings.

*Lat 40°-03' N  
Long 70°-38' W*

Time of day,

*7:55* ; of tide,

State of sky,

*b.c.*

Temperature of air,

*70 1/2*

"

surface of water,

*71*

"

at depth of

fathoms,

"

of bottom,

*49*

Depth, in fathoms,

*85 = 89*

Nature of bottom,

*gray sand*

Direction of surface current,

*Wind North Force 2*

Force of surface current,

*Drift NW 1'*

Direction of bottom current,

Force of bottom current,

Name of vessel,

*U.S. Fish Hawk*

To what service attached,

*U.S. Fish Commission*

Name and rank of commanding officer,

*Lieutenant L. L. Lamm*

Name and position of observer,

*U.S.N.  
J. J. Lamm  
U.S. Navy*

1110

## REMARKS.

Specific Gravities

Surface	1.0235	72
5 fms	35	72
10 "	37	71

Trawl over 9.25 down 9.35

heaving in 10.05 up 10.15

Citharichthys 300 fms out

All ground glutinous salt

Ophiura last of the Raia cylindrica

Heterostichus cygnosus

Pycnocheilus (salt)

Pachycheilus blunus

# TEMPERATURE RECORD.

Instrument used,

*Loire*

Current number of observation,

*1110*

Date,

*Aug 22 1882*

Locality.

*Off Martha's Vineyard*

Bearings.

*Lat 40°-02' N*

*Long 70°-35' W*

Time of day,

*9.16*

; of tide,

State of sky,

*bc*

Temperature of air,

*75*

" surface of water,

*72*

" at depth of

fathoms,

" of bottom,

*47*

Depth, in fathoms,

*96 = 100*

Nature of bottom,

*green mud & fine sand*

Direction of surface current.

*round North Force 2*

Force of surface current.

*Drift N x N 1/2 W 1'*

Direction of bottom current,

Force of bottom current.

Name of vessel,

*Fish Hawk*

To what service attached,

*U.S. Fish Comm*

Name and rank of commanding officer,

*St. Z. G. Tanner Lt. Comdr*

Name and position of observer,

*R. S. Clark*  
*Master USN*

REMARKS.

*Specific Gravities*  
 Surface 1.0239 71

5 fms 40 70

10 " 40 72

Trawl over 10.50 down 10.57

Leaving in 11.30 up 11.40 300 fms net.

*Paralichthys oblongus* per

*Rana catesbeiana* 1 *Physa* Cheston

*Hydrocephalus cyroplocus* (per)

*Melucius filicaris* (per)

*Macrurus carminatus*

On Trawl Line also *Ophidichthys*

*Physa* (20) *Rana* larvis (1)

*Rana* scutata (2)



# TEMPERATURE RECORD.

Instrument used,

Reflex Bowditch

Current number of observation.

1111

Date,

Aug 22 / 1882

Locality,

Off Martha's Vineyard

Bearings,

Lat.  $40^{\circ}-01'-33''$  N  
Long  $70^{\circ}-35'$  W

Time of day, 10.45 ; of tide,

State of sky,

bc

Temperature of air,

76

" surface of water,

72 712 # 46402

" at depth of 5 fathoms,

71

" of bottom,

47

Depth, in fathoms,

119 = 124

Nature of bottom,

fine sand

Direction of surface current,

NE force 2

Force of surface current,

Drift NE 1/2 E 1'

Direction of bottom current,

Force of bottom current,

Name of vessel,

U.S. Hawk

To what service attached,

U.S. Fish Comm

Name and rank of commanding officer,

Lt. L. L. Tanner USN

Name and position of observer,

J. J. British  
Midn USN

11/2  
REMARKS.

Specific Gravity  
Surface 1.0240 69

41 70

40 69

Trawl 12.55 down 1.05

hauled in 1.30 up 1.45

430 fms out

*Lophium piscatorius* 11 *Sebastes marinus* 11

*Sebastes marinus* (Stomach of *Lophium*)

*Halibut* *scuticosa* 5 *Scophthalmus* 40

*Callinectes* *marina* 1 *Macrurus*

*Rana* *radiata* *Stomatopoda* 11

*Physa* *chestro* 11 *Ophiolite* 11

*Elphidium* *humboldtianum* 11

*Planorbis* *planorbis* (few)

# TEMPERATURE RECORD.

Instrument used,

Deep Sea Trawl

Current number of observation,

1112

Date,

Aug 22 1882

Locality,

Off Martha's Vineyard

Bearings,

Lat 39°-56' N  
Long 70°-35' W

Time of day,

1243 ; of tide,

State of sky,

bc

Temperature of air,

72

surface of water,

72

at depth of

5 fathoms,

72 at 10 fms 65

of bottom,

43

Depth, in fathoms,

235 = 245

Nature of bottom,

fine sand & mud

Direction of surface current,

NE Force 1

Force of surface current,

Drift NW x N 1'

Direction of bottom current,

Temperature at 20 fms 44

Force of bottom current,

Name of vessel,

Fish Hawk

To what service attached,

US Fish Comm

Name and rank of commanding officer,

Lt. Z. L. Tanner USA

Name and position of observer,

W. B. Smith  
Midu USA

1113  
REMARKS.

*Specific Gravities*

Surface 1.0240 68

5 fms 40 70

10 " 41 70

Trawl over 154 down 2.03

heaving in 2.25 up 2.40

375 fms out -

*Forpina* (1) *Scopelus* (1st) *Physiculus* (1st)

*Raja* *Macrurus* *Bairdii* (1st) *Scopelus* (1st)

*Macrurus* *carinatus* (1st)

*Medusina* *villosa* *Sebastes* *marinus*

*Halargyreus* *sepioides*

*Synbranchus* *pinnatus*

# TEMPERATURE RECORD.

Instrument used,

Deep Sea Trawl

Current number of observation,

1113

Date,

Aug 22 1882

Locality,

Off Martha's Vineyard

Bearings,

Lat  $39^{\circ}57'N$   
Long  $70^{\circ}37'W$

Time of day,

145 ; of tide,

State of sky,

bc

Temperature of air,

75

surface of water,

72

at depth of

5 fathoms,

$71\frac{1}{2}$  10 fms  $65\frac{1}{2}$

of bottom,

43

Depth, in fathoms,

$184 = 192$

Nature of bottom,

green mud

Direction of surface current,

NE Force 2

Force of surface current,

North 1'

Direction of bottom current,

20 fms 49

Force of bottom current,

30 " 46

Name of vessel,

Fish Hawk

To what service attached,

U.S. Fish Comm

Name and rank of commanding officer,

H. L. Tanner USN

Name and position of observer,

Josiah  
M. V. N.

1114  
REMARKS.

Found over 2.4 f down 2.53-  
leaving in 3.16 of 3.28  
300 fms out

*Myxine glutinosa* (1) *Pepefus* (1)  
*Macrurus carinatus* (1)  
" *Baudin* (1)

*Sebastes marinus* (1)

# TEMPERATURE RECORD.

Instrument used,

Prof. Ben Trawl

Current number of observation,

1114

Date,

Aug 22, 1882

Locality,

Off Martha's Vineyard

Bearings,

Lat  $39^{\circ}58'N$   
Long  $70^{\circ}-38'W$

Time of day, 2.40 : of tide.

State of sky,

bc

Temperature of air,

72

" surface of water, 72

" at depth of 5 fathoms,  $71\frac{1}{2}$  10 fms 65

" of bottom, 43

Depth, in fathoms, 164 = 171

Nature of bottom, green mud,

Direction of surface current,

NE Force 2

Force of surface current,

drift NE 1'

Direction of bottom current,

at 50 fms  $43^{\circ}$

Force of bottom current,

" 50 "  $49^{\circ}$

Name of vessel,

Fish Hawk

To what service attached,

US Fish Comm

Name and rank of commanding officer,

Lt. L. L. Tanner USA

Name and position of observer,

John Clark  
Master USN

0 Bottom thermometer

+ 2192 = 47988

1115-  
REMARKS.

Drifts over 3,35 down 3,44  
heaving in 4,11 up 4,20  
275 fms out.  
No fish



# TEMPERATURE RECORD.

Instrument used,

Rake Dodge

Current number of observation.

1115

Date,

Aug 22, 1882

Locality,

Off Martha's Vineyard

Bearings,

Lat 39° 59' N  
Long 70° - 41' W

Time of day, 3.28 ; of tide,

State of sky,

bc

Temperature of air,

75

" surface of water,

72 1/2

" at depth of 5 fathoms,

72 at 10 fms 70

" of bottom,

45

Depth, in fathoms,

140 = 14 f

Nature of bottom,

Green mud & sand

Direction of ~~surface~~ current,

Drift NE Force, 2

Force of surface current,

Drift NW & N 3/4

Direction of bottom current,

Force of bottom current,

Name of vessel,

Fish Hawk

To what service attached,

U.S. Fish Comm

Name and rank of commanding officer,

Lt. Z. L. Tanner U.S.N.

Name and position of observer,

W. B. Smith  
Wm. B. Smith

1116  
REMARKS.

Trawl over 4.26 down 4.33  
heaving in 4.53 up 5.00  
300 fms out

At 5.00 got sounding in 146 fms

*Merluccius bilinearis* (few)  
*Lophius piscatorius* !!  
*Physiculus chestei* Reia & lanternia  
*Leptocephalus cynglossus* !!  
*Macrurus cornutus* (few)  
*Scorpaena dactyloptera*  
*Sebastes marinus*

# TEMPERATURE RECORD.

Instrument used,

*Trawl*

Current number of observation,

*1116*

Date,

*Aug 22 1882*

Locality,

*Off Martha's Vineyard*

Bearings,

*Lat 39°-59' N  
Long 70°-44' W*

Time of day,

*4:20* ; of tide,

State of sky,

*b.c.*

Temperature of air,

*77*

"

surface of water,

*72*

"

at depth of

*5*

fathoms,

*72 10 fms 68*

"

of bottom,

*46*

Depth, in fathoms,

*138 = 144*

Nature of bottom,

*hard sand & green mud*

Direction of surface current,

*Drift S.E. Force 2*

Force of surface current,

*Drift N.W. x W 1'*

Direction of bottom current,

Force of bottom current,

Name of vessel,

*Fish Hawk*

To what service attached,

*U.S. Fish Comm*

Name and rank of commanding officer,

*Lt. Z. L. Tanner U.S.N.*

Name and position of observer,

*Jos. Welch  
Master U.S.N.*

11/17

## REMARKS.

Trawl over 5.37 down 541  
 heaving in 6.08. up 6.12  
 240 fms out

*Paralichthys oblongus* (few)

*Glyptocephalus cynoglossus* (few)

*Muraenoides punctatus*

*Sebastes marinus* (few)

*Phycis tenuispinus*? *Chuss* (few)

# TEMPERATURE RECORD.

Instrument used,

Trawl

Current number of observation.

1117

Date,

Aug 22, 1882

Locality,

Off Martha's Vineyard

Bearings.

Lat  $40^{\circ}-02' N$   
Long  $70^{\circ}-45' W$

Time of day, 6 30 : of tide,

State of sky,

bc

Temperature of air,

78

" surface of water, 72

" at depth of 5 fathoms, 72 10 fms 62

" of bottom, 48

Depth, in fathoms,

85 = 89

Nature of bottom,

fine sand

Direction of surface current,

Drift N Force 3

Force of surface current,

N x E 1'

Direction of bottom current,

Force of bottom current,

Name of vessel,

Fish Hawk

To what service attached,

U.S. Fish Comm

Name and rank of commanding officer.

Lt. Z. L. Tanner USN

Name and position of observer,

J. Schott  
Midw USN

1118  
REMARKS.

Trawl over 6.25 down 6.30  
heaving in 6.35 up 6.40  
2.40 fms out

*Paralichthys oblongus* (juv)  
*Sebastes marinus* (juv) *Phycis tenuis* (3)

# TEMPERATURE RECORD.

Instrument used, *Trawl*

Current number of observation, *1118*

Date, *Aug 22, 1882*

Locality, *off Martha's Vineyard*

Bearings, *Lat 40°-03' N  
Long 70°-45' W*

Time of day, *6.20* ; of tide,

State of sky, *bc*

Temperature of air, *74*

" surface of water, *72*

" at depth of fathoms,

" of bottom, *49*

Depth, in fathoms, *67 = 70*

Nature of bottom, *fine sand*

Direction of surface current, *drift N Force 2*

Force of surface current, *drift NW 1/4*

Direction of bottom current,

Force of bottom current,

Name of vessel, *Fish Hawk*

To what service attached, *US Fish Comm*

Name and rank of commanding officer, *J. L. L. Tanner USN*

Name and position of observer, *W. L. L. Tanner*  
*Midu 1882*

1119  
REMARKS.

Trawl over 6.37 down 6.41  
heaving in 7.12 of 7.22  
215 fms out

At 5.22 got sounding in 56 fms  
Large *Neptunia decem costata*  
*Archaos Americanus*  
*Ophiotheca* (3) *Hippoglossoides platessoides*  
Large *Neptunia decem costata*  
*Archaos Americanus*



# TEMPERATURE RECORD.

Instrument used, *Trawl*  
 Current number of observation, *1119*  
 Date, *Aug 26, 1882*  
 Locality, *off Nantucket*  
 Bearings, *Lat 40°-08' N*  
*Long 68°-45' W*  
 Time of day, *6.32* ; at tide.  
 State of sky, *bc*  
 Temperature of air, *68*  
     " surface of water, *65*  
     " at depth of *5* fathoms, *65*  
     " of bottom, *48*  
 Depth, in fathoms, *93 = 97*  
 Nature of bottom, *sand & broken shells*  
 Direction of surface current, *wind NNE Force 3*  
~~Force of surface current,~~ *Drift NE 1/2 N 3/4*  
 Direction of bottom current,  
 Force of bottom current,  
 Name of vessel, *Fish Hawk*  
 To what service attached, *N Fish Comm*  
 Name and rank of commanding officer, *Lt. L. L. Sawyer USN*  
 Name and position of observer, *O. S. Holt*  
*Midw USN*

Trawl over 7.53 down 8.03

hauled in 8.30 of 8.45

*Libinia maritima* (nw) *Loxosoma angulata* (nw)

*Maccus Bandi* (nw) *Parafina* (nw)

" *corinathus* (nw)

*Rana radiata* (nw) *Physic Chusa* (nw)

" *erinacia* (nw) *Urosia* (nw)

" *pus* *Morluens bilinearis* (nw)

— deep-water basket-startfish

(*Astrorhynchus Tamarackii*) not taken by us

*Volium Bandi* (nw)

*Ustusca decemcostata*

*Sipho Siphonius*

*Buccinum undatum*

*Sipho fuscus*

*Addisonia fuscata*

*Urosia corallanata*

*Hyalinaria patula*

*Ensal diploptera* multiple

*Brissopsis lyris*

*Polidora Fuchsii*

*Porania spinulosa*

*Archaeo Agassizii*

# TEMPERATURE RECORD.

Instrument used,

*Trawl*

Current number of observation.

*1120*

Date.

*Aug 26th 1882*

Locality.

*Off Nantuxet*

Bearings.

*Lat 40° 05' N*

*Long 68° - 48' W*

Time of day,

*7 41*

; of tide,

State of sky,

*bc*

Temperature of air,

*69*

" surface of water,

*65*

" at depth of

*5*

fathoms,

*65 at 10 56*

" of bottom,

*4 3 1/2*

Depth, in fathoms,

*183 = 194*

Nature of bottom,

*fine sand & shells*

Direction of surface current.

*Wind NE 3*

Force of surface current.

*Drift NE 1 1/2*

Direction of bottom current,

Force of bottom current.

Name of vessel,

*Fish Hawk*

To what service attached,

*US Fish Comm*

Name and rank of commanding officer.

*Lt. F. L. Lamm, USN.*

Name and position of observer,

*R. B. Johnson  
Master USN*

1121

## REMARKS.

Sawd over 9.18 down 9.28  
 moving in 9.48 up 10.05  
 550 fms out

*Sebastes marinus* (few) unknown (surface)

*Macrurus Bairdii* *Molucca bilinearis*

" *carminatus*

*Cottunculus microps*

*Cyclopterus lumpus* (surface)

Large lot *Ophiacantha millopinia*

Lot *Bolocera* *Fruchiana*

" *Hyalinarcia artifera*

*Dolium Bairdii* frag

*Pecten vitreus*

*Urticina callosa*

*Paramuricea borealis* (rare corall)

*Antidore dentatum*

*Porania grandis*, very large

*Solaster* *Carlii*

*Lophaster furcifer* (very rare

+ not taken in this region

Infers)

PA-110, 11  
 1106-12-15

TEMPERATURE RECORD

# TEMPERATURE RECORD.

Instrument used,

*Trawl*

Current number of observation,

*1121*

Date,

*Aug 20th 1882*

Locality,

*off Nantucket*

Bearings,

*Lat 40° 04' N  
Long 68° 49' W*

Time of day,

*9.55* ; of tide,

State of sky,

*bc*

Temperature of air,

*65*

" surface of water, *65*

" at depth of *5* fathoms, *64 10 fms 56*

" of bottom, *4 1/2*

Depth, in fathoms,

*22 1/2 = 23 1/2*

Nature of bottom,

*fine sand & shell down*

Direction of surface current,

*drift WNE Force 4*

Force of surface current,

*drift WNW 1'*

Direction of bottom current,

Force of bottom current,

Name of vessel,

*Fish Hawk*

To what service attached,

*W Fish Comm*

Name and rank of commanding officer,

*H. L. L. Tanner USN*

Name and position of observer,

*J. J. Smith USN*

1122

REMARKS.

Trawl over 10,38 down 10,50  
heaving in 11,23 of 1145  
600 fms out

Liparis marinus (juv) Halosargyris viola (1),  
Great lot Acanella Norman  
with Astrochelis hymeni out  
Pecten vitreus on Acanella

1122

# TEMPERATURE RECORD.

Instrument used,

Trawl

Current number of observation,

1122

Date,

Aug 26th 1882

Locality,

Off Manchester

Bearings,

Lat  $40^{\circ}02'N$   
Long  $68^{\circ}50'W$

Time of day,

10.28 ; of tide,

State of sky,

bc

Temperature of air,

70

"

surface of water,

67

"

at depth of

5 fathoms,

66 at 10 fms 60

"

of bottom,

$40\frac{1}{2}$

Depth, in fathoms,

337 = 351.

Nature of bottom,

sand & shells

Direction of surface current,

Wind NE Force 4

Force of surface current,

Drift NW 1'

Direction of bottom current,

Force of bottom current,

Name of vessel,

Fish Hawk

To what service attached,

US Fish Comm

Name and rank of commanding officer,

Lt L. L. Tamm USN

Name and position of observer,

Booth  
Master USN